National Institute of Environmental Health Sciences

Changing pollen types/concentrations/distribution in the United States: Fact or fiction?

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Abstract:

The buildup of greenhouse gases in the atmosphere has resulted in global climate change that is having a significant effect on many allergenic plants through increases in plant productivity and pollen allergenicity and shifts in plant phenology. Based on experimental studies, increased atmospheric levels of carbon dioxide have directly increased plant productivity. This has affected the total amount of pollen produced in some species. Research has also shown increased levels of birch allergen at warmer temperatures. Warmer temperatures have resulted in earlier flowering for many spring-flowering species in many countries, recorded through visual observations of flowering and by airborne pollen. Increases in the cumulative season totals of various pollen types also have been recorded; some of these increases may be explained by changes in plant distribution.

Source: http://dx.doi.org/10.1007/s11882-008-0081-z

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Temperature, Unspecified Exposure

Air Pollution: Allergens

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified